WD AV-GP

Power-saving Hard Drives

Power-conserving WD AV-GP SATA hard drives take advantage of WD GreenPower Technology™ to meet the 24x7 requirements of demanding audio and video environments. With power reduction of up to 40 percent, they deliver cool and quiet operation and reliability perfect for audio video applications such as PVRs, DVRs, set-top boxes (STBs) as well as surveillance video recording.

INTERFACE
SATA 3 Gb/s

WIDTH/HEIGHT
3.5-inch/1-inch

ROTATIONAL SPEED
IntelliPower

CAPACITIES
160 GB to 2 TB

MODEL NUMBERS

WD20EVDS	WD10EVVS	WD3200AVVS
WD15EVDS	WD7500AVDS	WD2500AVVS
WD10EURS	WD5000AVDS	WD1600AVVS
WD10EVDS	WD5000AVVS	

Note: Not all products may be available in all regions of the world.

Product Features

24x7 reliability

These drives are designed to last in always-on, streaming digital audio/video environments such as PVR/DVR, DVR recorders, and surveillance video recorders.

Reduced power consumption

With the combination of WD's IntelliSeek, IntelliPark, and IntelliPower technologies, WD has reduced power consumption by up to 40 percent compared to competitors' drives. Lower power means less heat and better reliability.

Quiet

Noise levels have been minimized to less than one sone* – virtually below the threshold of human hearing.

SilkStream™

Optimized for smooth, continuous digital video playback of up to twelve simultaneous HD streams. SilkStream is compatible with the ATA streaming command set so CE customers can use standard streaming management and error recovery options.

IntelliSeek™

Calculates optimum seek speeds to lower power consumption, noise, and vibration.

IntelliPower™

A fine-tuned balance of spin speed, transfer rate, and caching algorithms designed to deliver both significant power savings and solid performance.

IntelliPark™

Parks the recording heads off the disk surface during spin up, spin down, and when the drive is off. This ensures the recording head never touches the disk surface resulting in improved long term reliability due to less head wear, and improved non-operational shock tolerance.

Preemptive Wear Leveling (PWL)

The drive arm frequently sweeps across the disk to reduce uneven wear on the drive surface common to audio video streaming applications.

Advanced Format (AF)

Technology being adopted by WD and other drive manufacturers as one of multiple ways to continue growing hard drive capacities. AF is a more efficient media format that enables increased areal densities. (WD10EURS model only)

* A sone is a subjective unit of loudness as perceived by a person with normal hearing.

WD GreenPower TECHNOLOGY™

PUT YOUR LIFE ON IT®

WD AV-GP

Specifications[1]	2 TB	1.5 TB	1 TB	1 TB	750 GB	500 GB	320 GB	250 GB	160 GB
Model numbers	WD20EVDS	WD15EVDS	WD10EURS	WD10EVDS WD10EVVS	WD7500AVDS	WD5000AVDS WD5000AVVS	WD3200AVVS	WD2500AVVS	WD1600AVVS
Formatted capacity	2,000,398 MB	1,500,301 MB	1,000,204 MB	1,000,204 MB	750,156 MB	500,107 MB	320,072 MB	251,059 MB	160,041 MB
User sectors per drive	3,907,029,168	2,930,277,168	1,953,525,168	1,953,525,168	1,465,149,168	976,773,168	625,142,448	490,350,672	312,581,808
Advanced Format	No	No	Yes	No	No	No	No	No	No
Native command queuing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SATA latching connector	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Performance									
Data transfer rate (max) Buffer to host (SATA) Host to/from drive (sustained)	3 Gb/s 110 MB/s	3 Gb/s 110 MB/s	3 Gb/s 110 MB/s	3 Gb/s 111 MB/s	3 Gb/s 110 MB/s	3 Gb/s 110 MB/s	3 Gb/s 80 MB/s	3 Gb/s 80 MB/s	3 Gb/s 80 MB/s
Cache (MB)	32	32	64	32 (WD10EVDS) 8 (WD10EVVS)	32	32 (WD5000AVDS) 8 (WD5000AVVS)	8	8	8
Average latency (ms)	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Rotational speed (RPM)	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Average drive ready time (sec)	14.5	14.5	14.3	14.3	14.3	14.3	8	8	8
Reliability/Data Integrity									
Load/unload cycles[2]	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}
Limited warranty (years)[3]	3	3	3	3	3	3	3	3	3
Power Management									
12VDC (A, max)	1.603	1.603	1.464	1.671	1.671	1.392	1.350	1.350	1.350
Average power requirements (W) Read/Write Idle Standby Sleep	5.9 4.9 0.7 0.7	5.9 4.9 0.7 0.7	4.9 4.2 0.4 0.4	4.9 4.2 0.4 0.4	4.9 4.2 0.4 0.4	4.1 3.7 0.8 0.8	4.7 2.3 0.8 0.8	4.7 2.3 0.8 0.8	4.7 2.3 0.8 0.8
Environmental Specifications[4]									
Temperature (°C) Base casting (max) Operating Non-operating	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70	70 0 to 60 -40 to 70
Shock (Gs) Operating (2 ms, read/write) Operating (2 ms, read) Non-operating (2 ms)	30 65 250	30 65 250	30 65 300	30 65 300	30 65 300	30 65 350	30 65 350	30 65 350	30 65 350
Average acoustics (dBA)[5] Idle mode Quiet seek mode	25 26	25 26	23 24	24 25	24 25	21 22	22 22	22 22	22 22
Physical Dimensions									
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.61/0.73	1.61/0.73	1.32/0.60	1.32/0.60	1.32/0.60	0.97/0.44	0.99/0.45	0.99/0.45	0.99/0.45

[1] As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 3 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

[2] Controlled unload at ambient condition.

[3] The term of the limited warranty may vary by region. Visit http://support.wdc.com/warranty for details.

[4] No non-recoverable errors during operating tests or after non-operating tests.

[5] Sound power level.

For service and literature:
http://support.wdc.com
www.westerndigital.com

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WD Certified F.I.T. Functional Integrity Testing Lab

Compatible with Windows 7
Works with Windows Vista
SERIAL ATA 3 Gb/s
RoHS COMPLIANT
Mac